Special Issue

Multifunctional Cement Composites for Structural Health Monitoring

Message from the Guest Editors

As the concrete infrastructure grows in size and ages as well, the demand for structural health monitoring (SHM) and prognoses that can evaluate and predict the service life of concrete structures increases rapidly. Concrete infrastructure requires more maintenance than steel structures because of its nonhomogeneous material characteristics. Numerous methodologies for SHM of concrete structures have been studied. This Special Issue aims to address the current progress of SHM using multifunctional cement composites. Papers are invited that investigate innovative technologies for cement-based sensors highlighting the latest scientific understanding of material characteristics. Topics may include studies on multifunctional fillers, dispersion technologies, fabrication and self-sensing properties using piezoresistivity characteristics of cement composites with multifunctional fillers. Moreover, papers are welcome that deal with numerical analysis using special techniques, such as the multiscale method. A structural application with experimental verification for an actual environment is also very welcome.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multidimensional network.

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